

Application No.: 10/748,479

Case No.: 58846US002

Remarks

Claims 1-11 are pending. We have amended claim 1 to incorporate the limitations of original claim 6, now amended. Claims 4 and 9 have been amended to independent form.

We gratefully acknowledge the Examiners indication that claims 4 and 7-11 would be allowable if written in independent form.

The Examiner, however, has rejected claim 6 under 35 USC § 103(a) as being unpatentable over U.S. Patent 5,165,605 to Morita et al. in view of U.S. Patent 4,917,300 to Gloviak et al.

As noted above, we have amended claim 1 to incorporate the limitations of original claim 6 that now has been amended.

Morita et al describe a spray gun that like the spray gun according to the present invention as claimed in claim 1, includes horns projecting past the outlet end of a nozzle on opposite sides of an axis, and an air passageway extending through portions of the horns to outlet passageways having outlet apertures spaced along the horns from the outlet end of the nozzle and facing opposite sides of the axis, those outlet passageways and apertures being non-circular and shaped to direct air under greater than atmospheric pressure flowing through the passageways against opposite sides of a stream of liquid flowing through the nozzle to reshape the stream.

In the spray gun described by Morita et al, however, the horns are of metal and the passageways and apertures are formed by machining which adds significantly to the cost of making the spray gun.

In contrast, in the present invention the horns are formed on a molded polymeric air cap, and the non circular outlet passageways and apertures are formed by the molding. The use of a molded polymeric air cap to form the horns and the non circular outlet passageways reduces the cost to produce the spray gun, and facilitates making outlet passageways with many different non circular shapes that may be useful to shape the air stream in different ways.

The Examiner has acknowledged this difference between the spray gun described by Morita et al and the spray gun according to the present invention both in his comments and by citing Gloviak et al. While Gloviak et al describes molded polymeric air cap having horns and outlet passageways and apertures, the outlet passageways and apertures 53 in the horns described

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by Gloviac et al are circular. At column 4, lines 24 to 27 Gloviac et al indicates that with respect to the molded air cap 76 "Diametrically spaced ears or wings 84 (see FIG. 9) extend forwardly from rim 82 and have outwardly diverging flat inner surfaces 85 in which the spray ports 53 are formed." From this language it is not at all clear whether the spray ports 53 were formed by the molding process, or were formed by drilling the spray ports 53 after the air cap 76 was molded. In any event, there is no teaching or suggestion in Gloviac et al to use a molded polymeric air cap to facilitate making outlet passageways with many different non circular shapes, and to make such non circular shapes in the molding.

It is only in the light of applicant's invention that the combination of Morita et al and Glaviac et al could be suggested.

Claim 1 as amended should be allowed.

Claims 2, 3, 5, and amended claim 6 are dependent on claim 1 and thus should be allowed for all of the reasons given above with respect to claim 1. Additionally, these claims recite additional structural features that are not taught or suggested by the cited art. For example, amended claim 6 recites that the outlet passageways and apertures comprise first and second pairs of opposed non circular outlet passageways and apertures in said horns.

Reconsideration and allowance of all of the claims now in this application are respectfully requested.

Respectfully submitted,

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